

AMENDMENTS TO THE CLAIMS

1 (Original). A dental implant system comprising  
an expandable polymer sheath suitable for placement within a jawbone; and  
a rigid implant fitting within the polymer sheath and causing expansion of the  
polymer sheath when fitted within the sheath.

2 (Original). A system as in claim 1  
wherein the polymer is Ultra High Molecular Weight Polyethylene.

3 (Original). A system as in claim 1  
wherein the polymer is Polypropylene.

4 (Original). A system as in claim 1  
wherein the polymer is High Density Polyethylene.

5 (Original). A system as in claim 1  
wherein the polymer is Polyurethane Elastomer.

6 (Original). A system as in claim 1  
wherein the implant is made of titanium or an alloy thereof.

7 (Original). A system as in claim 1  
wherein the implant is made of stainless steel or an alloy thereof.

8 (Original). A system as in claim 1  
wherein the polymer sheath has an exterior surface that is ribbed.

9 (Original). A system as in claim 1  
wherein the polymer sheath has an interior surface that is threaded, and

wherein the implant has an exterior surface that is threaded, and  
whereby the interior surface of the polymer sheath mates with the exterior surface of  
the implant when the implant is fitted within the polymer sheath.

10 (Original). A system as in claim 1  
wherein the implant is tapered.

11 (Original). A system as in claim 1  
wherein the implant is ribbed.

12 (Original). A system as in claim 1  
further comprising an abutment adapted to be fixed to the rigid implant, the  
abutment permitting attachment of a dental prosthesis.

13 (Original). A system as in claim 12  
wherein the polymer sheath, the implant, and the abutment, when coupled together  
and inserted within a jawbone, form a support structure that permits attachment of a dental  
prosthesis.

14 (Original). A system as in claim 13  
wherein the prosthesis is a single crown.

15 (Original). A system as in claim 13  
wherein the prosthesis is a bridge.

16 (Original). A system as in claim 13  
wherein multiple support structures support a dental prosthesis.

17 (Original). A system as in claim 16  
wherein the prosthesis is a bridge.

18 (Original). A system as in claim 1  
wherein expansion of the sheath upon insertion of the implant results in immediate stability of the sheath within the jaw bone.

19 (Original). A system as in claim 13  
wherein the support structure and prosthesis can be inserted in a single office visit.

20 (Previously amended). A method of installing a dental prosthesis comprising the steps of:

providing a system as in claim 1;  
preparing a site within a jawbone;  
inserting the polymer sheath into the prepared site;  
inserting the implant within the sheath, thereby causing expansion of the sheath within the jawbone;  
coupling the abutment to the implant; whereby the sheath, the implant, and the abutment form a support structure for a dental prosthesis; and  
attaching a dental prosthesis to the abutment.

21 (Original). A method as in claim 20  
wherein the prosthesis is a crown.

22 (Original). A method as in claim 20  
wherein the prosthesis is a bridge.

23 (Original). A method as in claim 20 comprising the further step of:  
implanting a plurality of support structures into the jawbone.

24 (Original). A method as in claim 23 further

comprising the step of  
attaching a bridge to the support structures.

25 (Original). A method of inserting a dental implant comprising the steps of  
providing a system as in claim 1;  
preparing a site within a jawbone; and  
inserting the polymer sheath into the prepared site; and  
inserting the implant within the sheath, thereby causing expansion of the sheath within the jawbone.

26 (New). A dental implant device comprising  
a sheath sized and configured for implantation into a jawbone, the sheath comprising a polymer material that replicates the periodontal membrane, the sheath including an interior receptacle for receiving a rigid implant, the material of the sheath being expandable in response to receiving the implant.

27 (New). A device as in claim 26  
wherein the polymer is Ultra High Molecular Weight Polyethylene.

28 (New). A device as in claim 26  
wherein the polymer is Polypropylene.

29 (New). A device as in claim 26  
wherein the polymer is High Density Polyethylene.

30 (New). A device as in claim 26  
wherein the polymer is Polyurethane Elastomer.

31 (New). A device as in claim 26

wherein the polymer sheath has an exterior surface that is ribbed

32 (New). A device as in claim 26  
wherein the interior receptacle is threaded.

33 (New). A device as in claim 26  
wherein expansion of the sheath upon receiving the implant results in immediate  
stability of the sheath within the jawbone.